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Post cervical uterine torsion in a Mecheri ewe

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Abstract

Dystocia due to uterine torsion occurs as a rare event in ewes. Uterine torsion is the rotation of gravid uterus on its own axis. The present case deals with the successful management of post cervical uterine torsion in a Mecheri sheep at field level. A four-year-old full-term pluriparous ewe was presented with a history of severe abdomen straining, frequent lying down and getting up and inability to deliver the lamb. On clinical examination, animal was dull and depressed, had intermittent abdominal straining and no discharge from vulva. On per-vaginal examination, anterior vagina was found stenosed, cranial vaginal mucosa was found spirally twisted towards the right and the cervix was not palpated. The case was diagnosed as post cervical uterine torsion above 180°. Detorsion was done by Schaffer's method and a live male fetus was relieved by traction.

Keywords: post cervical uterine torsion, Mecheri sheep, detorsion, schaffer's method

Introduction

The rotation of a gravid uterus on its own long axis is known as uterine torsion. Torsion of the uterus can occur in any animal species. It is most common in dairy cows and rare in bitches, mares, ewes and does (Scott, 2011). It occurs most frequently in the third trimester of pregnancy or during the first or second stage of labour (Roberts, 1971) [12]. Torsion of uterus can occur at low degree, such as 45° to 90° or even at 180° to 360°. Uterine torsion above 180° can be fatal to both fetus and dam (Roberts, 2004) [13]. Palpating the stenosed anterior vagina, whose walls are frequently arranged in oblique spirals that indicate the direction of uterine rotation, is a simple way to make the diagnosis (Arthur, 2001) [3]. The incidence of uterine torsion was higher in animals with single fetus (Gupta *et al.*, 2021) [5]. Per-vaginal rotation of the fetus, rolling of the dam and Schaffer's method are the common methods indicated for relieving uterine torsion. The appropriate method is selected based on the degree of uterine rotation. When the above techniques fail to relieve the torsion caesarean section is performed (Ghuman, 2010) [4].

Case history and observation

A pluriparous ewe (Mecheri breed) of 4 years old was presented with the anamnesis of frequent lying down and getting up and abdominal straining (Fig. 1) for 12hrs. On clinical examination, ewe was restless, walked with slow and stiff gait and was anorexic. The rectal temperature was 38.2 C. Intermittent abdominal straining was noticed. There is no evidence of water bag rupture and fluid discharge from vulva.

On per-vaginal examination, anterior vagina was found stenosed, cranial vaginal mucosa was found spirally twisted towards the right. The cervix and the fetal parts could not be palpated. The case was diagnosed as post cervical uterine torsion above 180°.

Treatment

Detorsion of the uterus was done with Schaffer's method. Caudal epidural anesthesia was given with 2 ml of 2% lignocaine. The ewe was casted in right lateral recumbency (on the side of direction of torsion). Forelimbs and hind limbs were secured separately. A wooden plank (100 cm X 15 cm) was placed on the upper paralumbar fossa (Fig. 2) in an inclined manner with the lower end touching the ground and constant pressure was applied on center of the plank. The ewe was then slowly rolled on same side of the torsion. Per vaginal examination was done after each roll to determine its effectiveness. After two complete rolls the vaginal folds disappeared, water bag and the fetus were palpated. After the successful detorsion a live male fetus was delivered by applying mild traction. Postoperatively intravenous electrolytes, oxytetracycline dosed at 10mg/Kg b.wt IV, meloxicam dosed at 0.1 mg/Kg b.wt IM and

Chlorpheniramine maleate 2mL IM was given. After 3 days follow up of the case the animal showed an uneventful recovery.



Fig 1: Ewe showing the straining



Fig 2: Restraining of ewe for detorsioning

Results and Discussion

In small ruminant practice, timely diagnosis and management of obstetrical problems is critical since it affects the animal's survival (Sharun and Erdoğan 2019) [14]. Studies on dystocia in small ruminants suggests that about 5% to 20 % of dystocia is due to uterine torsion (Ali, 2011; Prasad *et al.*, 2014; Anusha *et al.*, 2016) [1, 11, 2]. Unlike bovine, uterine torsion in small ruminants is very rare.

The present case was diagnosed as post cervical uterine torsion more than 180° towards right side which was same as case study reported by Naidu (2012) [9] and Velladurai *et al.* (2016) [15]. Whereas Phogat *et al.* (2007) [10] reported pre cervical uterine torsion of about 270° towards right side. The author also opined that the diagnosis of pre cervical uterine torsion is very difficult and can be identified only during the caesarian section.

In this case detorsion was done by Schaffer's method. This approach is commonly used to relieve the torsion (Arthur *et al.*, 2001; Kumar *et al.*, 2014; Manokaran *et al.*, 2014) [3, 11, 8]. Gupta *et al.*, 2021 [5] reported that Schaffer's method has the success rate of 83.3% for relieving uterine torsion and post treatment fertility rate of 100%. Hence this method is most suitable for treating the uterine torsion of small ruminants under field conditions.

In the present case a live male fetus was delivered by applying mild traction. Uterine torsion in small ruminants is

generally associated with single fetus in the uterus, which is consistent with the present study. Twinning or bicornual pregnancy lessens the chance of uterine twisting (Roberts, 1971) [12].

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